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09/939,730	08/28/2001	Katsutoshi Tajiri	31762-174923	2698
7590		04/06/2005	EXAMINER	
VENABLE		NGO, NGUYEN HOANG		
P.O. Box 34384				
Washington, DC 20043-9998		ART UNIT		
		2663		
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Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/939,730

Applicant(s)

TAJIRI, KATSUTOSHI

Examiner

Nguyen Ngo

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,6 is/are rejected.
- 7) ☒ Claim(s) 3-5,7 and 8 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 1/6/04
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_

## DETAILED ACTION

### *Claim Objections*

1. Claim 1 is objected to because of the following informalities:

As for claim 1: The "first storage storing size information" in line 12 should be - first storage for storing size information.

As for claim 1: The "said data is last data" in line 12 should be - said data is the last data.

Appropriate correction is required.

### *Double Patenting*

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 1, 2, and 6 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 2, and 6 of copending Application No. 09933140 in view of Waclawsky (U.S 6,449,225).

**Regarding claim 1**, Application No. 09933140 discloses a terminal unit control circuit, a first storage for storing size information, a coding/decoding circuit, a second storage for storing data, a information adding/decoding circuit, and an interfacing circuit (claim 1, Application No. 09933140) which are similar or identical to claim 1. However it fails to disclose the limitation of a frequency-of-transmission monitoring circuit and instead discloses a control data monitoring circuit. It discloses that in response to a notification control signal (detection signal to show last coded data) output from said coding/decoding circuit, said control data is to be repeatedly read out of said storage (generating a control signal for causing said subject coded data to be repeatedly transmitted). It further states a timing signal 226 is input to the timer 220 when the last one of a sequence of data to be sent is fed from the control monitor 22 to the LAN controller (pg8, paragraph 0022, lines 6-8, Application No. 09933140). The Examiner interprets and corresponds this to the limitation of determining said data is last data of a sequence.

Waclawsky further discloses a technique which involves manipulating (finding difference between actual number of times and said reference number of times) a new set of packets within memory based on the feedback signal, and transmitting the new set of packets based on how the new set was manipulated

(Abstract). Wacławsky thus provides the motivation to manage network packets correctly and efficiently. It is well known and conventional in the art to manipulate packets such as finding the difference in order to effectively transmit certain packets (last) in order to achieve quality of service. Therefore, it would have been obvious for one having ordinary skill in the art to incorporate a monitoring circuit disclosed by Wacławsky with the device mentioned in Application No. 09933140 as it provides the means to monitor and manage certain packets for quality of service.

**Regarding claim 2**, with the limitation of a decision circuit for determining whether or not the coded data is the last coded data, Application No. 09933140 discloses of a data discriminating circuit for determining whether or not coded data is the control data. As mentioned above, it also discloses a timing signal (coming from the coding/decoding circuit, 40 of figure 1 and 226 of figure 2) which is input when the last one of a sequence of data is sent (pg8, paragraph 0022, lines 6-8, Application No. 09933140), correlating to the limitation of determining said data is last data of a sequence. Application No. 09933140 provides the motivation of finding the last sequence of data yet is silent in stating how this is performed. It is well known and conventional in the art to use certain circuits to determine whether or not a coded data is the last set of data. Therefore it would have been obvious to use the data discriminating circuit to

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also find out whether or not coded data is the last set of data, and output said timing signal.

**Regarding claim 6**, Application No. 09933140 discloses similar or identical steps with the exemption of step 6. However this step may be correlating to the rejection of claim 1 mentioned above. It has already been shown that the frequency-of-transmission monitoring circuit may perform similar functions of the control data monitoring circuit. Therefore based on the rejection of claim 1, claim 6 is also rejected on the same bases.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

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4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claims 1, 2, and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schuster et al. (U.S 6,483,600) in view of Waclawsky (U.S 6,449,225) and further in view of Watanabe et al (U.S 6,310,897), hereinafter referred to as Schuster, Waclawsky, and Watanabe, respectively.

**Regarding claim 1**, Schuster discloses a gateway comprising:

a facsimile receiver and sender, which receives facsimile signal data as input and produces facsimile packets as output (control circuit for storing data received, col12 lines 50-53) and further discloses of using T.38

Recommendation, that the facsimile signal is coded as T.30 data (controlling unit in accordance with a first standard, col12 lines 57-60). Accordingly, it is inherent that the facsimile receiver and sender must store data received in order to produce the facsimile packets.

a facsimile modulation detector, which analyzes the formatted facsimile signal for a data rate (first storage for storing size of data to be coded, col14 lines6-7). This data rate is then used to determine the size of each frame (packet, col14 lines 49-54).

a V.21 demodulator/modulator, which organizes that facsimile signal data into frames, which are timer-based sequences of bytes of data. A frame (packet)

comprises the bytes of signal collected by the demodulator (coding data in accordance with size information, col14 lines 43-47)

a I/O controller that implements a stack of communications protocols (col11 lines 60-63). The network I/O controller formats the facsimile packets into networks packets by adding an IP header and a transport protocol header (information adding/separating circuit and interfacing circuit, col14 lines 57-65).

Schuster, however, fails to disclose the step of determining whether said data is the last data of a sequence of continuous coded data, a second storage for storing coded data (assuming loss of data), and a frequency-of-transmission monitoring circuit for repeatedly transmitting said data. Schuster discloses that facsimile transmission become susceptible to lost packets (col2 lines 6-8) and that forward error correction may be used (col14 lines 66-67), providing the motivation of packet management in case of packet loss.

Waclawsky teaches a packet management technique involving manipulating (finding difference between actual number of times and said reference number of times as mentioned with form paragraph 3 above) a set of packets (Abstract) with a device comprising of an input scheduler that receives packets from the network and schedules the packets within the queue structure of the memory (second storage for storing, col6 lines 11-13), a traffic monitor that can generate a total count of all the packets transmitted (which would be obvious in determining the last packet sent in order to generate total count, frequency-of-transmission monitoring circuit, col7 lines 11-14) and generate a real-time

feedback signal (determining the last data of sequence, col6 line24-26) to attempt to order the queues for transmission in a manner that enables the data communication device to achieve certain TOS requirements (retransmission of coded data, col6 lines41-45).

Therefore, based on the motivation provided by Schuster for packet management in case of packet loss, it would have been obvious to a person skilled in the art to include a management technique and apparatus (second storage for storing and frequency-of-transmission monitoring circuit) disclosed by Wacławsky in the system of and method for communicating real-time facsimile disclosed by Schuster in order to achieve better packet management for a reliable and efficient packet transmission.

Schuster and Wacławsky is however silent to how to determine whether said data is the last data of a sequence of continuous coded data. Wacławsky discloses the need to generate a total count of all packets transmitted (col7 lines 13-15), providing the motivation to determine the last packet sent in order to generate a total count and effectively manage packet transmissions.

Watanabe however discloses of a decoder that determines if the immediately preceding decoded video packet to be the last packet of the VOP (col20 lines 11-16).

Therefore, based on the motivation of Schuster for packet management and the motivation of Wacławsky for generating a total count of packets, it would have been obvious to a person skilled in the art to include a packet management

technique and apparatus disclosed by Waclawsky in the system of and method for communicating real-time facsimile disclosed by Schuster in order to achieve better packet management for a reliable and efficient packet transmission. It would have been further obvious to include a decoder disclosed by Watanabe, which determines if the packet is the last packet with conjunction to the traffic monitoring circuit disclosed by Waclawsky to better and effectively manage a sequence of packets between facsimile devices.

**Regarding claim 2**, the limitation of having the coding/decoding circuit comprise of a decision circuit for determining whether or not coded data is last coded data, can be shown through the decoder for determining the last packet of a VOP disclosed by Watanabe (col20 lines 11-16). As it is well known and conventional in the art to have decision circuits for determining the type of packets sent (last). It would have thus been obvious to include a decision circuit in the decoder disclosed by Watanabe to determine if the packet is the last packet (last coded data).

**Regarding claim 6**, which can be referred with claim 1, the Examiner interprets these seven steps to correlate with the each one of the components of claim 1. It is obvious that each of these components will perform a specific function as mentioned in claim 1 which can be correlated and mapped to claim 6. Therefore based on the rejection of claim 1, claim 6 is also rejected on the same bases.

***Allowable Subject Matter***

7. Claims 3, 4, 5, 7, and 8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. These claims are allowable due to the further limitations of the frequency-of-transmission monitoring circuit and any corresponding steps set forth by these limitations.

***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a) Lin (U.S 5,546,388), Packet-Switched Facsimile Network and Method of Operation.

b) Qarni et al. (U.S 6,438,105), Reliable Internet Facsimile Protocol.

c) Chan et al. (U.S 5,790,641), System and Method for Improving Facsimile Delay Tolerances.

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d) Lauffenburger et al. (U.S 6,813,249), System and Method for Prefetching Data.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nguyen Ngo whose telephone number is (571)272-8398. The examiner can normally be reached on Monday-Friday 7am - 3:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on (571) 272-3139. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

NN.  
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**Nguyen Ngo**

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**PRIMARY EXAMINER**

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